

International Chemical Safety Cards

METHANE

ICSC: 0291



Methyl hydride

CH₄Molecular mass: 16.0
(cylinder)

ICSC # 0291

CAS # 74-82-8

RTECS # [PA1490000](#)

UN # 1971

EC # 601-001-00-4

February 10, 2000 Validated



TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/ SYMPTOMS	PREVENTION	FIRST AID/ FIRE FIGHTING
FIRE	Extremely flammable.	NO open flames, NO sparks, and NO smoking.	Shut off supply; if not possible and no risk to surroundings, let the fire burn itself out; in other cases extinguish with water spray, powder, carbon dioxide.
EXPLOSION	Gas/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Use non-sparking handtools.	In case of fire: keep cylinder cool by spraying with water. Combat fire from a sheltered position.
EXPOSURE			
• INHALATION	Suffocation. See Notes.	Ventilation. Breathing protection if high concentration.	Fresh air, rest. Artificial respiration if indicated. Refer for medical attention.
• SKIN	ON CONTACT WITH LIQUID: FROSTBITE.	Cold-insulating gloves.	ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Refer for medical attention.
• EYES	ON CONTACT WITH LIQUID: FROSTBITE.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
• INGESTION			

SPILLAGE DISPOSAL	STORAGE	PACKAGING & LABELLING
Personal protection: self-contained breathing apparatus. Evacuate danger area! Consult an expert! Ventilation. Remove all ignition sources. NEVER direct water jet on liquid.	Fireproof. Cool. Ventilation along the floor and ceiling.	F+ symbol R: 12 S: 2-9-16-33 UN Hazard Class: 2.1

SEE IMPORTANT INFORMATION ON BACK

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Prepared in the context of cooperation between the International Programme on Chemical Safety & the Commission of the European Communities (C) IPCS CEC 1994. No modifications to the International version have been made except to add the OSHA PELs, NIOSH RELs and NIOSH IDLH values.

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I M P O R T A N T D A T A	PHYSICAL STATE; APPEARANCE: COLOURLESS, COMPRESSED OR LIQUEFIED GAS, WITH NO ODOUR.	ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation.
	PHYSICAL DANGERS: The gas is lighter than air.	INHALATION RISK: On loss of containment this gas can cause suffocation by lowering the oxygen content of the air in confined areas.
	CHEMICAL DANGERS:	EFFECTS OF SHORT-TERM EXPOSURE: Rapid evaporation of the liquid may cause frostbite.
	OCCUPATIONAL EXPOSURE LIMITS: TLV: (aliphatic hydrocarbons gases, Alkane C1-C4) 1000 ppm (as TWA) (ACGIH 2005). MAK not established.	EFFECTS OF LONG-TERM OR REPEATED EXPOSURE:

PHYSICAL PROPERTIES	Boiling point: -161°C Melting point: -183°C Solubility in water, ml/100 ml at 20°C: 3.3 Relative vapour density (air = 1): 0.6	Flash point: Flammable Gas Auto-ignition temperature: 537°C Explosive limits, vol% in air: 5-15 Octanol/water partition coefficient as log Pow: 1.09
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ENVIRONMENTAL DATA	
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NOTES

Density of the liquid at boiling point: 0.42 kg/l. High concentrations in the air cause a deficiency of oxygen with the risk of unconsciousness or death. Check oxygen content before entering area. Turn leaking cylinder with the leak up to prevent escape of gas in liquid state. After use for welding, turn valve off; regularly check tubing, etc., and test for leaks with soap and water. The measures mentioned in section PREVENTION are applicable to production, filling of cylinders, and storage of the gas. Other UN number: 1972 (refridgerated liquid), Hazard class: 2.1. Card has been partly updated in October 2005. See section Emergency Response.

Transport Emergency Card: TEC (R)-20G1F

NFPA Code: H 1; F 4; R 0;

ADDITIONAL INFORMATION

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(C) IPCS, CEC, 1994	

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